Appln. No. 09/824,614 Applicants: Rich et al.

Reply to Action dated April 26, 2006

## IN THE CLAIMS:

1. (Currently Amended): A method for exchanging objects between two computing entities in an object-oriented programming environment using a transport mechanism in which said objects are contained in files, each file defining a resource, each resource designed to contain a plurality of particular ones of said objects, said method comprising the steps of:

(1) providing a resource factory for building resources, said factory including a plurality of software modules, each software module adapted for building resources from a data source responsive to a request for an object of a type to which said resource corresponds, each said software module designed to build a resource of a particular type:

- (2) responsive to a request for an object from a first computing entity, selecting a software module for building a resource of the type to which said object corresponds;
- (3) <u>subsequent to step (2)</u>, building a resource for containing said object using said selected software module, said resource populated with information defining said resource, but not containing said object;
  - (4) subsequent to step (3), inserting said object into said resource;
- (5) <u>subsequent to step (4)</u>, transmitting said resource to said first computing entity using said transport mechanism; and
  - (6) subsequent to step (5), providing to said first computing entity said object.
- (Previously Presented): The method of claim 1 wherein, in step (4), only said object is inserted in said resource.

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3. (Previously Presented): The method of claim 2 further comprising the

steps of:

(7) providing a reflection adapter factory for populating objects within resources,

said factory adapted to provide software modules for populating objects, each said

software module designed for an environment corresponding to an object;

(8) responsive to a request for a property of said object, selecting a one of said

reflection adapters for the environment of the particular property;

(9) populating said object with said property; and

(10) providing to said first computing unit said property.

4. (Original): The method of claim 3 wherein said object comprises a

plurality of properties and step (9) comprises populating said object with all properties

of said object that can be reflected.

(Currently Amended): A method for exchanging objects between two

computing entities in an object-oriented programming environment using a transport  $\ensuremath{\mathsf{S}}$ 

mechanism in which said objects are contained in files, each file defining a resource,

each resource designed to contain a plurality of particular ones of said objects, said

method comprising the steps of:

(1) providing a resource factory for building resources, said factory including a

plurality of software modules for building resources from a data source, each said

software module designed to build a resource of a particular type:

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(2) determining whether said first computing entity has stored a resource

containing said object:

(3) if said first computing entity has stored a resource corresponding to said

object, determining if said corresponding resource stored at said first computing entity

contains said object:

(4) if said corresponding resource stored at said first computing entity does not

contain said object, said first computing entity issuing a request for said object;

(5) responsive to a request for said object from said first computing entity,

selecting a software module for building a resource of the type to which said object

corresponds;

(6) subsequent to step (5), building a resource for containing said object using

said selected software module, said resource populated with information defining said

resource, but not containing said object;

(7) subsequent to step (6), inserting only said object into said resource;

(8) subsequent to step (7), transmitting said resource to said first computing

entity using said transport mechanism; and

(9) subsequent to step (8), providing to said first computing entity said object.

6. (Currently Amended): A method for exchanging objects between two

computing entities in an object-oriented programming environment using a transport

mechanism in which said objects are contained in files, each file defining a resource,

each resource designed to contain a plurality of particular ones of said objects, said

method comprising the steps of:

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(1) providing a resource factory for building resources, said factory including a

plurality of software modules for building resources from a data source, each said

software module designed to build a resource of a particular type:

(2) responsive to a request for an object from a first computing entity, selecting

a software module for building a resource of the type to which said object corresponds:

(3) subsequent to step (2), building a resource for containing said object using

said selected software module, said resource populated with information defining said

resource, but not containing said object:

(4) subsequent to step (3), inserting said object into said resource;

(5) subsequent to step (4), transmitting said resource to said first computing

entity using said transport mechanism;

(6) subsequent to step (5), providing to said first computing entity said object.

(7) providing a reflection adapter factory for populating objects within resources,

said factory adapted to provide software modules for populating objects, each said

software module designed for an environment corresponding to an object;

(8) determining whether said first computing entity has stored said property;

(9) if said first computing entity has not stored said property, issuing a request

for said property;

(10) responsive to said request for said property of said object, selecting a one

of said reflection adapters for the environment of the particular property;

(11) populating said object with said property; and

(12) providing to said first computing unit said property.

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7. (Previously Presented): The method of claim 3 wherein said transport

mechanism comprises XML document.

8. (Original): The method of claim 7 wherein said objects comprise Java

obiects.

9. (Previously Presented): The method of claim 8 wherein said transport

mechanism comprises an XMI document.

10. (Original): The method of claim 9 wherein steps (4) and (5) utilize the

Meta Object Facility of the Object Management Group specification to read an XMI

document.

11. (Original): The method of claim 8 wherein, in step (2), said information

defining said resource comprises at least a package object of said resource.

12. (Currently Amended): A method for exchanging objects between two

computing entities in an object-oriented programming environment using a transport

mechanism in which said objects are contained in files, each file defining a resource,

each resource designed to contain a plurality of particular ones of said objects, said

method comprising the steps of:

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(1) providing a resource factory for building resources, said factory including a plurality of software modules for building resources from a data source, each said

software module designed to build a resource of a particular type:

- (2) responsive to a request for an object from a first computing entity, selecting a software module for building a resource of the type to which said object corresponds;
- (3) <u>subsequent to step (2)</u>, building a resource for containing said object using said selected software module, said resource populated with information defining said resource, but not containing said object;
  - (4) subsequent to step (3), inserting said object into said resource;
- (5) <u>subsequent to step (4)</u>, transmitting said resource to said first computing entity using said transport mechanism;
  - (6) subsequent to step (5), providing to said first computing entity said object.
- (7) providing a reflection adapter factory for populating objects within resources, said factory adapted to provide software modules for populating objects, each said software module designed for an environment corresponding to an object;
  - (8) determining whether said first computing entity has stored said property;
- (9) if said first computing entity has not stored said property, issuing a request for said property;
- (10) responsive to a request for said property of said object, selecting a one of said reflection adapters for the environment of the particular property;
- (11) determining whether said selected reflection adapter has previously reflected said requested property;

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(12) if said first computing entity has previously reflected said requested

property, populating said object with said property; and

(13) providing to said first computing unit said property.

13. (Original): The method of claim 1 wherein said data source for building

said resources comprises a live system.

14. (Original): The method of claim 1 wherein said data source for building

said resources comprises a database.

15. (Original): The method of claim 1 wherein said data source for building

said resources comprises a document in a format other than a format of said transport

mechanism.